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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/616,013	07/13/2000	Yoshihiro Ishikawa	15689.53	3923

7590 03/06/2003

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EXAMINER
ORGAD, EDAN

ART UNIT	PAPER NUMBER
2682	

DATE MAILED: 03/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/616,013	Applicant(s) ISHIKAWA ET AL.	
	Examiner Edan Orgad	Art Unit 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 July 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2, 5, 11* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-22, 24, 26 and 28-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Hamabe (US 2002/0111163).

Regarding claims 1, 13 and 28, Hamabe teaches a cell search control method by which a mobile station searches for a perch channel transmitted by a base station to capture and receive the perch channel, and determines which base station to communicate with or to be standby (figure 2) for, said cell search control method comprising: a measuring step of measuring receiving quality of a currently captured perch channel; and a control step of determining a frequency of searching for a new perch channel in response to the receiving quality measured by said measuring step (¶ 0068, 0070 & 0078).

Regarding claims 2 and 14, Hamabe teaches said measuring step measures received power of the currently captured perch channel; and said control step controls the frequency of searching for a new perch channel in response to the highest received power measured by said measuring step such that when the highest received power is high, the frequency of searching for a new perch channel is low, whereas when the highest received power is low, the frequency of searching for a new perch channel is high (¶ 0073).

Regarding claims 3 and 15, Hamabe teaches said measuring step measures received power of the currently captured perch channel; and said control step controls the frequency of searching for a new perch channel in response to the ratio of the second highest received power

to the highest received power measured by said measuring step such that when the ratio is high, the frequency of searching for a new perch channel is high, whereas when the ratio is low, the frequency of searching for a new perch channel is low (¶ 0083 & 0084).

Regarding claims 4 and 16, Hamabe teaches said measuring step measures received power of the currently captured perch channel; and said control step controls the frequency of searching for a new perch channel in response to the number of perch channels with received power whose ratio to the highest received power measured by said measuring step is greater than a predetermined value such that when the number of perch channels is great, the frequency of searching for a new perch channel is high, whereas when the number of perch channels is small, the frequency of searching for a new perch channel is low (figure 6, steps 702 & 708).

Regarding claims 5 and 17, Hamabe teaches said measuring step measures a received SIR of the currently captured perch channel; and said control step controls the frequency of searching for a new perch channel in response to the highest received SIR measured by said measuring step such that when the highest received SIR is high, the frequency of searching for a new perch channel is low, whereas when the highest received SIR is low, the frequency of searching for a new perch channel is high (¶ 0074).

Regarding claims 6 and 18, Hamabe teaches said measuring step measures a received SIR of the currently captured perch channel (¶ 0074); and said control step controls the frequency of searching for a new perch channel in response to the ratio of the second highest received SIR to the highest received SIR measured by said measuring step such that when the ratio is high, the frequency of searching for a new perch channel is high, whereas when the ratio is low, the frequency of searching for a new perch channel is low (¶ 0113 & 0156).

Regarding claims 7 and 19, Hamabe teaches said measuring step measures a received SIR of the currently captured perch channel (¶ 0074); and said control step controls the frequency of searching for a new perch channel in response to the number of perch channels with a received SIR whose ratio to the highest received SIR measured by said measuring step is greater than a predetermined value such that when the number of perch channels is great, the frequency of searching for a new perch channel is high, whereas when the number of perch channels is small, the frequency of searching for a new perch channel is low (¶ 0113 & 0156).

Regarding claims 8 and 20, Hamabe teaches an extracting step of decoding a received perch channel, and extracting transmission power information, the perch channel including its own transmission power information (¶ 0066), wherein said measuring step measures received power of a currently captured perch channel; and said control step obtains a propagation loss between the mobile station and a base station that transmits the perch channel from the received power measured by said measuring step and the transmission power of the perch channel with the received power extracted by said extracting step, and controls the frequency of searching for a new perch channel in response to the minimum propagation loss obtained such that when the minimum propagation loss is high, the frequency of searching for a new perch channel is high, whereas when the minimum propagation loss is low, the frequency of searching for a new perch channel is low (¶ 0105 & 0131).

Regarding claims 9 and 21, Hamabe teaches an extracting step of decoding a received perch channel, and extracting transmission power information, the perch channel including its own transmission power information (¶ 0066), wherein said measuring step measures received power of a currently captured perch channel; and said control step obtains a propagation loss between the mobile station and a base station that transmits the perch channel from the received power measured by said measuring step and the transmission power of the perch channel with the received power extracted by said extracting step, and controls the frequency of searching for a new perch channel in response to the ratio of the second minimum propagation loss to the minimum propagation loss obtained such that when the ratio is low, the frequency of searching for a new perch channel is high, whereas when the ratio is high, the frequency of searching for a new perch channel is low (¶ 0105 & 0131).

Regarding claims 10 and 22, Hamabe teaches an extracting step of decoding a received perch channel, and extracting transmission power information, the perch channel including its own transmission power information (¶ 0066), wherein said measuring step measures received power of a currently captured perch channel; and said control step obtains a propagation loss between the mobile station and a base station that transmits the perch channel from the received power measured by said measuring step and the transmission power of the perch channel with the received power extracted by said extracting step, and controls the frequency of searching for a new perch channel in response to the number of perch channels with a propagation loss whose

ratio to the minimum propagation loss obtained is less than a predetermined value such that when the number of the perch channels is great, the frequency of searching for a new perch channel is high, whereas when the number of the perch channels is small, the frequency of searching for a new perch channel is low (¶ 0105 & 0131-0137).

Regarding claim 11, Hamabe teaches a mobile station searches for a perch channel transmitted by a base station to capture and receive the perch channel, and determines which base station to communicate with or to be standby (¶ 0068) for, said cell search control method comprising: a measuring step of measuring transmission power of a signal to be transmitted to the base station that the mobile station currently communicate with or is currently standby for; and a control step of controlling a frequency of searching for a new perch channel in response to the lowest transmission power measured by said measuring step such that when the lowest transmission power is high, the frequency of searching for a new perch channel is high, whereas when the lowest transmission power is low, the frequency of searching for a new perch channel is low (¶ 0073 & 0074).

Regarding claims 12, 26 and 30, Hamabe teaches a method by which a mobile station searches for a perch channel transmitted by a base station to capture and receive the perch channel, and determines which base station to communicate with or to be standby for (¶ 0068), said cell search control method comprising: a detecting step of detecting a moving speed of the mobile station; and a controlling step of controlling a frequency of searching for a new perch channel in response to the moving speed detected by said detecting step such that when the moving speed is high, the frequency of searching for a new perch channel is high, whereas when the moving speed is low, the frequency of searching for a new perch channel is low (¶ 0211-0213).

Regarding claims 24 & 29, Hamabe teaches a plurality of base stations and a mobile station which searches for perch channels transmitted by the plurality of base stations to capture and receive the perch channels (¶0066), and determines which base station to communicate with or to be standby for, said mobile station comprising: measuring means for measuring transmission power of a signal to be transmitted to the base station that the mobile station currently communicate with or is currently standby (¶ 0068) for; and control means for controlling a frequency of searching for a new perch channel in response to the lowest

transmission power measured by said measuring means such that when the lowest transmission power is high, the frequency of searching for a new perch channel is high, whereas when the lowest transmission power is low, the frequency of searching for a new perch channel is low (¶ 0074, 0083 & 0084).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 23, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamabe (US 2002/0111163) in view of Higuchi et al (US 2002/0016190)

Regarding claims 23, 25 and 27, Hamabe fails to specifically disclose the mobile station monitoring paging to itself by intermittent reception in a standby mode. However, it is well known in the art, as taught by Higuchi to have a mobile station monitor paging to itself by intermittent reception in a standby mode (¶ 0005). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include have the mobile station monitor paging to itself by intermittent reception in a standby mode with Hamabe's invention in order to reduce power consumption and save battery power.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edan Orgad whose telephone number is 703-305-4223. The examiner can normally be reached on 8:00AM to 5:30PM with every other Friday off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Edan Orgad
March 4, 2003

3/4/03
NGUYEN T. VO
PRIMARY EXAMINER